State of Utah

JON M. HUNTSMAN, JR.
Governor

GARY R. HERBERT
Lieutenant Governor

Department of Administrative Services
RICHARD K. ELLIS
Executive Director

Division of Facilities Construction and Management
F. KEITH STEPAN
Director

ADDENDUM

Date:	17 July 2006
To:	Contractors
From:	Jim Russell, Project Manager, DFCM
Reference:	UDOT Region 3 Fire System Upgrades DFCM Project No. 05233900
Subject:	**Addendum No. 1**

Pages	Addendum	1 page
	Drawings	2 pages
	Total	**3 pages**

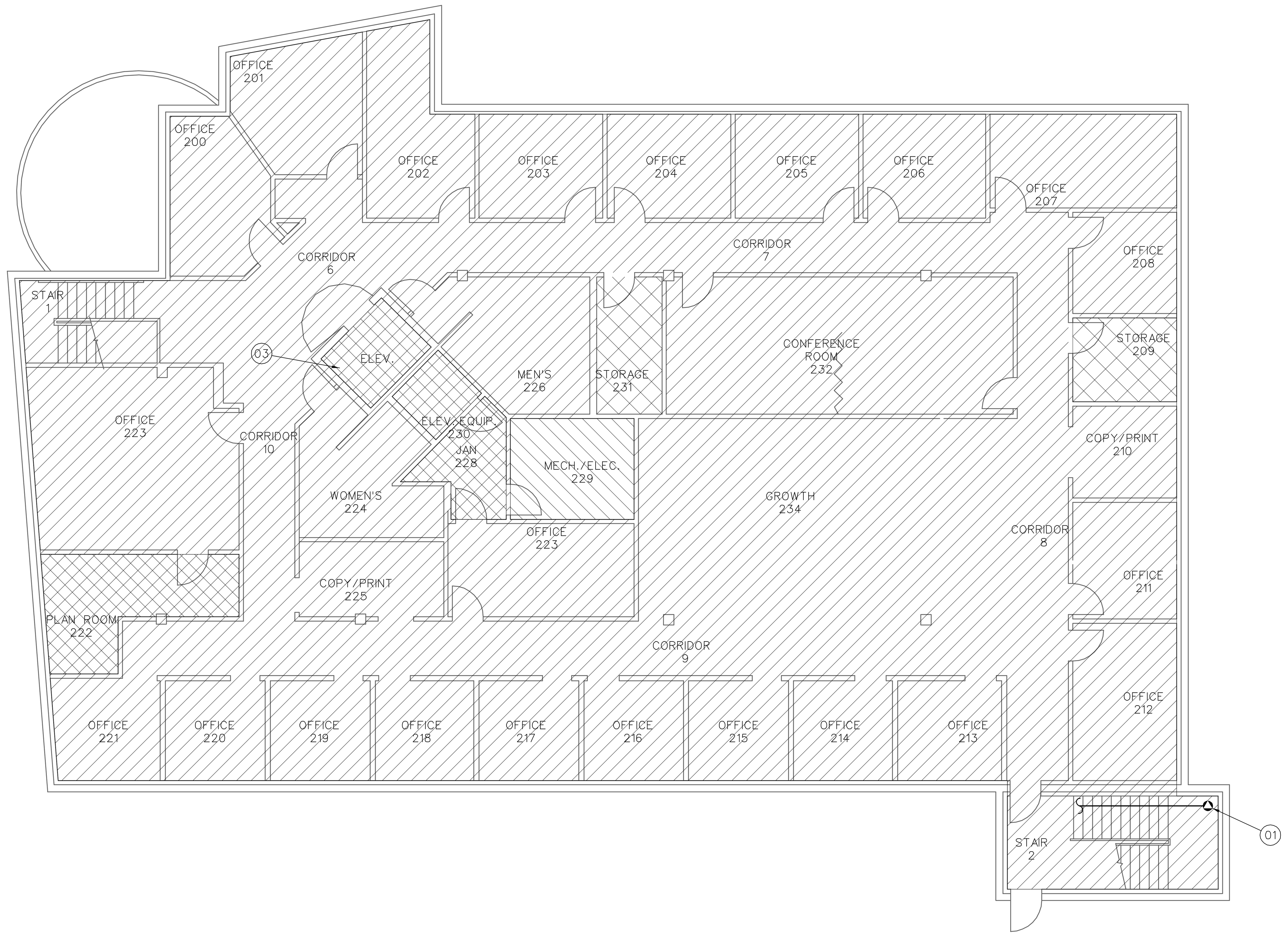
Note: This Addendum shall be included as part of the Contract Documents. Items in this Addendum apply to all drawings and specification sections whether referenced or not involving the portion of the work added, deleted, modified, or otherwise addressed in the Addendum. Acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to disqualification.

1.1 Drawings missing from original Bid Documents

1.1.1 Sheet FP-2.2

1.1.2 Sheet FP-2.3

End of Addendum



FIRE SPRINKLER DESIGN CRITERIA – LEVEL2

1/8" = 1'-0"

N

FIRE SPRINKLER SYSTEM KEY NOTES

1. FIRE SPRINKLER SYSTEM RISER. SEE DETAIL ON DRAWINGS.
2. FURNISH AND INSTALL NEW UNDERGROUND FIRE SPRINKLER SUPPLY MAIN FOR EACH BUILDING IN ACCORDANCE WITH NFPA 13, NFPA 24 AND STATE OF UTAH DFCM REQUIREMENTS. CONNECT TO EXISTING 8" LOOPED SITE MAIN (SEE SHEET FP-1.1).
3. INSTALL A SIDEWALL SPRINKLER TO PROTECT BOTTOM OF ELEVATOR SHAFT IN ACCORDANCE WITH NFPA 13 8.14.5.1. FIRE SPRINKLER AT TOP OF NON-COMBUSTIBLE ELEVATOR SHAFT MAY BE OMITTED IN ACCORDANCE WITH NFPA 13 8.14.5.5.
4. INSTALL DRY SIDEWALL SPRINKLERS TO PROTECT BELOW EXTERIOR CANOPY IN ACCORDANCE WITH NFPA 13 8.14.7. SPACING OF SPRINKLERS SHALL CONFORM TO REQUIREMENTS FOR ORDINARY HAZARD.
5. PROVIDE UL LISTED CORROSION RESISTANT SPRINKLER IN MOIST ROOM.
6. PROVIDE SPRINKLERS AT ROOF DECK AND BELOW SUSPENDED CEILING.

FIRE SPRINKLER SYSTEM GENERAL NOTES

1. PROVIDE AND INSTALL A COMPLETE FIRE SPRINKLER SYSTEM PER NFPA 13 (2002 EDITION), THE PROJECT SPECIFICATIONS AND THESE DRAWINGS TO PROVIDE FIRE PROTECTION OF EACH BUILDING. WORK SHALL BEGIN BY CONNECTING TO EXISTING LOOPED SITE MAIN AND INSTALLING NEW UNDERGROUND FIRE SPRINKLER LATERAL. OVERHEAD PIPING SHALL NOT BE CONNECTED TO UNDERGROUND PIPING UNTIL UNDERGROUND PIPING HAS BEEN FLUSHED AND TESTED IN ACCORDANCE WITH NFPA 24.
2. FIRE SPRINKLER CONTRACTOR SHALL PREPARE AND SUBMIT FIRE SPRINKLER SHOP DRAWINGS, HYDRAULIC CALCULATIONS AND EQUIPMENT DATA SHEETS TO UTAH STATE FIRE MARSHAL'S OFFICE, DFCM AND PROJECT ENGINEER.
3. FIRE SPRINKLER SYSTEMS SHALL BE DESIGNED TO SUPPLY THE DISCHARGE DENSITIES INDICATED ON THE DRAWINGS.
4. ALL MATERIALS, DEVICES AND EQUIPMENT SHALL BE U.L. LISTED OR F.M. APPROVED FOR USE IN FIRE PROTECTION SYSTEMS. INSTALLER SHALL BE LICENSED TO INSTALL FIRE SPRINKLER SYSTEMS IN THE STATE OF UTAH.
5. ALL HORIZONTAL PIPING SHALL BE INSTALLED 2'-0" (MAINS) OR 1'-0" (BRANCH LINES) CENTERLINE BELOW ROOF DECK. WHERE CEILINGS ARE NOT PROVIDED, DEFLECTORS OF SPRINKLERS SHALL BE LOCATED WITHIN 12" OF THE ROOF DECK. ADJUST ELEVATION AS REQUIRED TO AVOID CONFLICTS WITH STEEL BEAMS.
6. PIPING:
   PROVIDE STEEL PIPING CONFORMING TO ANSI/ASTM A53, ASTM A135 AND ASTM A795

   2-1/2" (NOMINAL) AND LARGER PIPING MAY BE SCHEDULE 10

   2" (NOMINAL) AND SMALLER PIPING SHALL SCHEDULE 40 OR APPROVED EQUAL.

   ALL PIPING SHALL HAVE A CRR (U.L. CORROSION RESISTANCE RATIO) EQUAL TO OR GREATER THAN 1.0.
7. FITTINGS:

   PROVIDE CAST IRON FITTINGS FOR THREADED PIPE. PROVIDE RUBBER GASKETED FITTINGS FOR ROLL GROOVED SCHEDULE 10 MAINS. PROVIDE WELDED OUTLETS FOR BRANCH LINE ATTACHMENTS TO MAINS. PLAIN END FITTINGS ARE NOT ACCEPTABLE.
8. HANGERS:

   1-1/4" AND SMALLER PIPING - MINIMUM ONE HANGER PER LENGTH OF PIPE AND MAXIMUM 12'-0" BETWEEN HANGERS.

   1-1/2" AND LARGER PIPING - MINIMUM ONE HANGER PER LENGTH OF PIPE AND MAXIMUM 15'-0" BETWEEN HANGERS.
9. SPRINKLER SPACING:

   LIGHT HAZARD: 225 SQ. FT (MAXIMUM)
   ORDINARY HAZARD: 130 SQ. FT (MAXIMUM)
   EXTRA HAZARD: 100 SQ. FT (MAXIMUM)
   WAREHOUSE: 100 SQ. FT (MAXIMUM)
10. SEISMIC BRACING: BRACING PROVIDED FOR ALL PIPING AS REQUIRED BY NFPA #13 USING SCHEDULE 40 PIPE. RIGID COUPLINGS USED ON FEED MAINS AND CROSS MAINS. BRACING SHALL BE ATTACHED TO STRUCTURAL MEMBERS IN ACCORDANCE WITH NFPA 13.
11. PROVIDE EXTRA SPRINKLERS PER NFPA 13 FOR PROTECTION BELOW DUCTS, CONDUIT, OR SIMILAR EXPOSED OBSTRUCTIONS OVER 48" WIDE. PROVIDE EXTRA SPRINKLERS AS REQUIRED BY NFPA 13 WHERE SPRINKLER HEAD DISCHARGE IS OBSTRUCTED.
12. PROVIDE FIRE SPRINKLERS IN ACCORDANCE WITH NFPA 13 TO PROTECT ANY CONCELEAD SPACES ENCLOSED WHOLLY OR PARTLY BY EXPOSED COMBUSTIBLE CONSTRUCTION.
13. WATER SUPPLY AVAILABLE FOR FIRE SPRINKLER SYSTEM ACCORDING TO WATER FLOW TEST CONDUCTED AT SITE BY PCI APRIL 14, 2006. PRESSURES REPORTED BELOW HAVE BEEN REDUCED BY 20% TO ACCOUNT FOR FUTURE DEVELOPMENT OF AREA AND MAY BE USED IN THE HYDRAULIC CALCULATIONS FOR THE FIRE SPRINKLER WITHOUT FURTHER REDUCTION:

    STATIC PRESSURE: 91 PSI
    RESIDUAL PRESSURE: 80 PSI
    FLOW: 1,343 GPM

DESIGN DENSITY LEGEND

PATTERN	OCCUPANCY GROUP	DESIGN DENSITY (GPM/SQ FT)	DESIGN AREA (SQ FT)	HOSE ALLOWANCE (GPM)	AREAS
	LIGHT HAZARD	0.10	1,500	100	CORRIDORS. LOBBIES, OFFICE SPACES, BREAK ROOMS, RESTROOMS, CONFERENCES ROOMS, TRAINING ROOMS, ETC.
	ORDINARY HAZARD GROUP 1	0.15	1,500	250	ELECTRICAL ROOMS, COMMUNICATION ROOMS, MECHANICAL ROOMS, ETC.
	ORDINARY HAZARD GROUP 2	0.20	1,500	250	MISCELLANEOUS STORAGE, ELEVATOR EQUIPMENT AND PIT, LAB SPACE, JANITORIAL, VEHICLE PARKING, WASH & MAINTENANCE, WELDING SHOP, WOOD SHOP, CARPENTER SHOP, ELECTRICAL SHOP, PLAN ROOMS, ETC.
	EXTRA HAZARD GROUP 2	0.40	2,500	500	PAINT STORAGE, PAINT SHOP AND PAINT EQUIPMENT STORAGE
	TIRE STORAGE (6' HIGH ON PORTABLE RACK ON TREAD)	0.32	2,000	500	WAREHOUSE

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Fire Protection Engineers
-Since 1983-
182 South 600 East Suite 202
Salt Lake City, UT 84102
PHONE:(801)-596-1601 • FAX:(801)-596-2561
DOMAIN: pciut.com

JOB NO. 103991
DWG ISSUE: BID SET

DRAWN BY: BAJ
CHECKED BY: GTJ

REVISIONS:

DRAWING DATE: 06/13/06

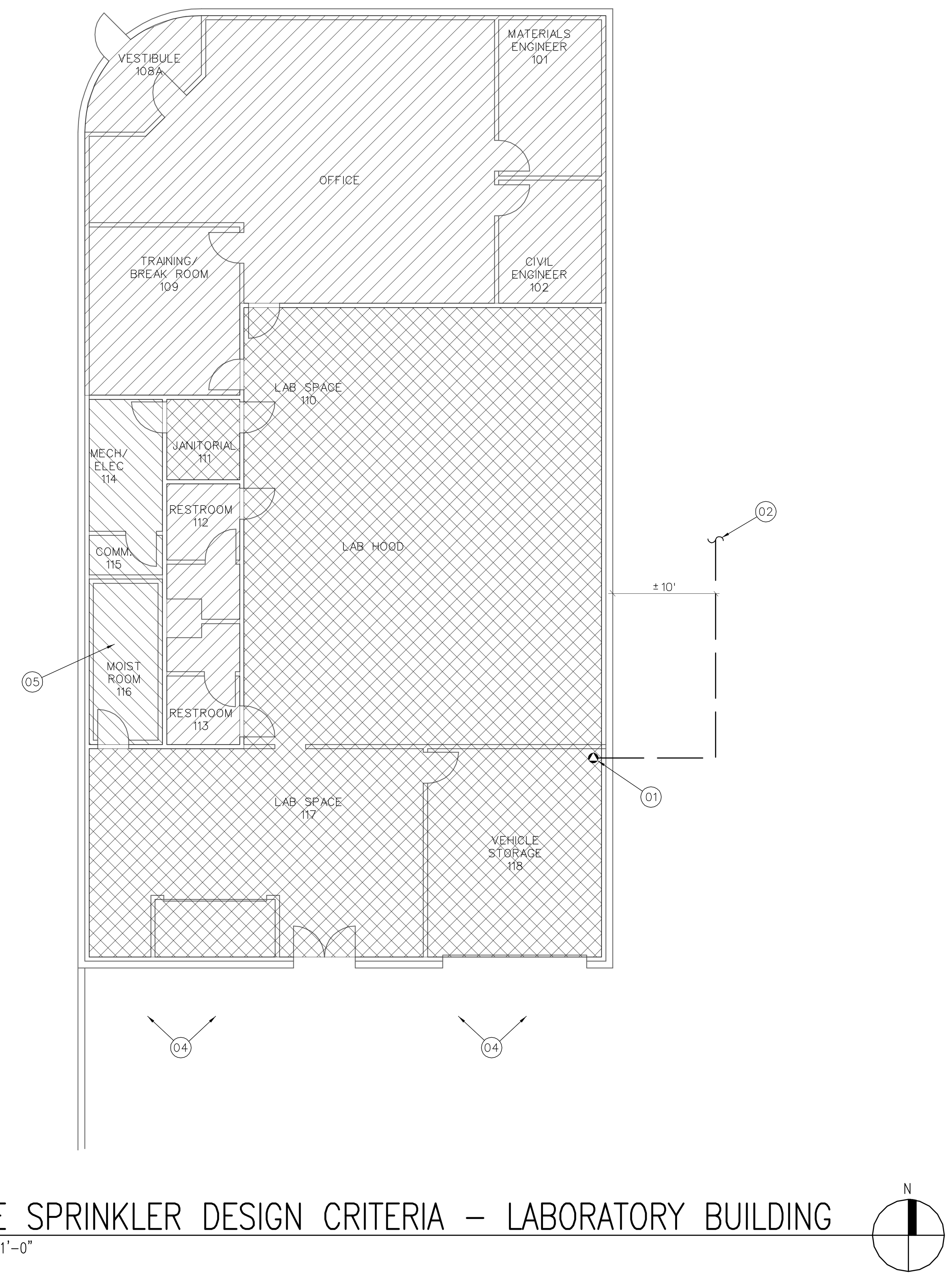
REVISION DATE:

UDOT REGION 3
PROVO, UTAH

FIRE ALARM SYSTEM UPGRADES
DFCM PROJECT #04202310

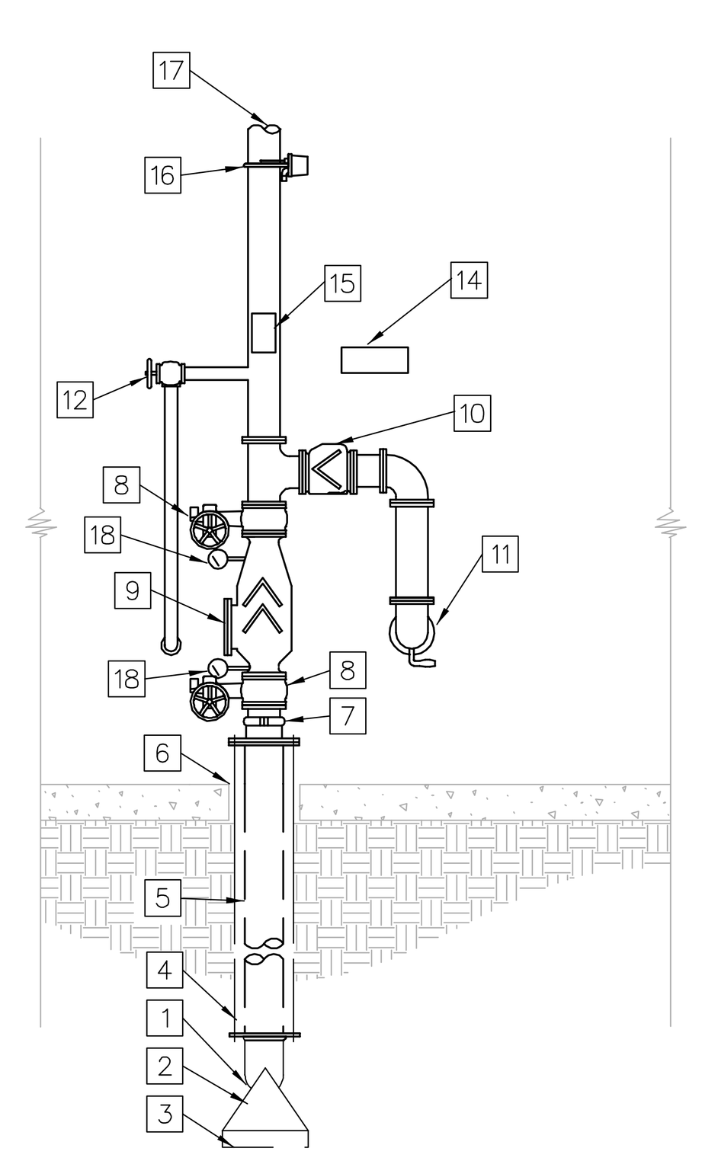
FIRE SPRINKLER DESIGN CRITERIA ADMINISTRATION BUILDING LEVEL 2

FP-2.2



FIRE SPRINKLER DESIGN CRITERIA – LABORATORY BUILDING

1/8" = 1'-0"



1 — UNDERGROUND SUPPLY PIPING (SEE SHEET FP-1.1 FOR CONTINUATION)
2 — 90° M.J. BEND
3 — CONCRETE THRUST BLOCK, SIZED PER NFPA #24
4 — ANCHOR RODS, PER NFPA #24 - PROVIDE CORROSION PROTECTION
5 — CEMENT LINED DUCTILE IRON FLANGE X SPIGOT PIECE - TRANSITION FROM UNDERGROUND SUPPLY TO INTERIOR PIPING
6 — SLEEVE AT FLOOR SPACE WITH 2" CLEAR SPACE AROUND PIPE - FILL SPACE WITH MASTIC
7 — FLEXIBLE COUPLING
8 — BUTTERFLY CONTROL VALVE WITH BUILT-IN TAMPER SWITCH AND ATTACHED LOCKING CHAIN
9 — DOUBLE CHECK BACK FLOW PREVENTION ASSEMBLY (VERTICAL ORIENTATION)
10 — SWING CHECK VALVE
11 — 4" OUT TO 2-WAY FIRE DEPT. CONNECTION. PROVIDE AUTOMATIC BALL DRIP. LOCATE F.D.C 18" TO 48" ABOVE EXTERIOR GRADE.
12 — ANGLE VALVE FOR MAIN DRAIN. EXTEND DISCHARGE TO BUILDING EXTERIOR. SIZE DRAIN LINE PER NFPA 13.
13 — NOT USED
14 — SPARE SPRINKLER HEAD CABINET, PER NFPA 13
15 — HYDRAULIC CALCULATION INFORMATION SIGN.
16 — VANE TYPE WATER FLOW SWITCH
17 — SUPPLY TO FIRE SPRINKLERS
18 — PRESSURE GAUGE

LABORATORY RISER DETAIL

N.T.S

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FIRE SPRINKLER DESIGN CRITERIA LABORATORY BUILDING

FP-2.3